



## Gulf of Mexico Harmful Algal Bloom Bulletin

16 December 2004

National Ocean Service

National Environmental Satellite, Data, and Information Service

Last bulletin: December 13, 2004

### Conditions:

A harmful algal bloom has been identified south of Cape Romano and west of Cape Sable. Very low coastal impacts are expected for southern Collier County and Monroe County.

### Analysis:

The confirmed HAB persists offshore of the 10,000 islands area. Satellite imagery indicates that the HAB has expanded and has become patchy on its northeast edge, just south of Cape Romano. Medium concentration of *K. brevis* was found at 25°35'N, 81°28'W. Imagery indicates chlorophyll concentration above 6  $\mu\text{g/L}$  within this patchy area at 25°25'N, 81°20'W.

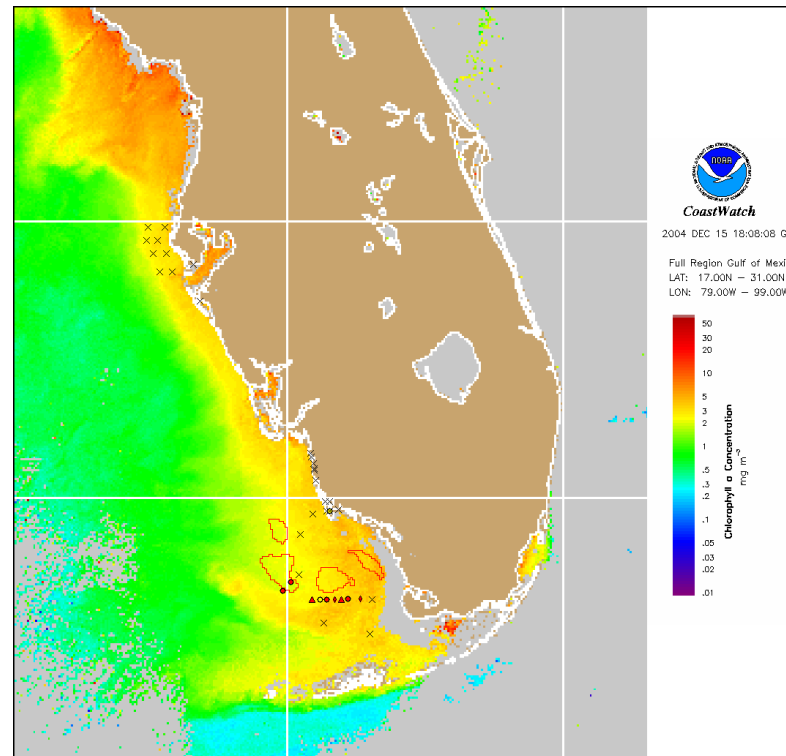
Samples show medium *K. brevis* concentration due west of Cape Sable at 25°16'N, 81°40'W. This is at the southern edge of the HAB. South of this, a *Rhizosolenia* bloom persists, but samples have found no *K. brevis* in this bloom. Southward transport of the HAB is likely through Monday.

There have been reports of a few dolphin mortalities near Port St. Joe this week. No recent samples have confirmed the presence of *K. brevis* in this area. Imagery indicates a high chlorophyll feature off of Cedar Key. This is most likely not a HAB.

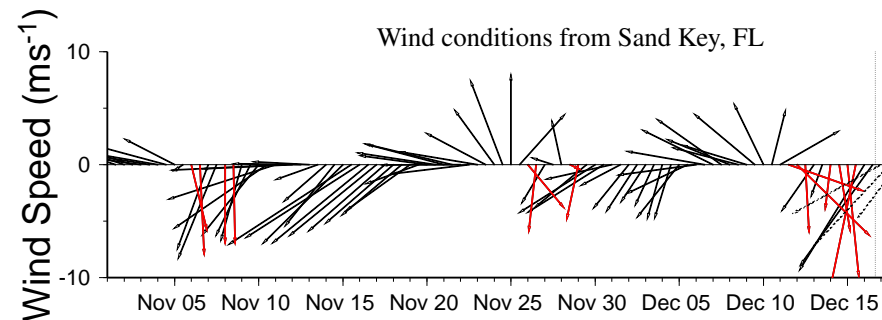
Brondor, Stolz

Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

1. These data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Distribution for military, or commercial purposes is NOT permitted.
3. There are restrictions on Internet/Web/public posting of these data.
4. Image products may be published in newspapers. Any other publishing arrangements must receive OrbImage approval via the CoastWatch Program.

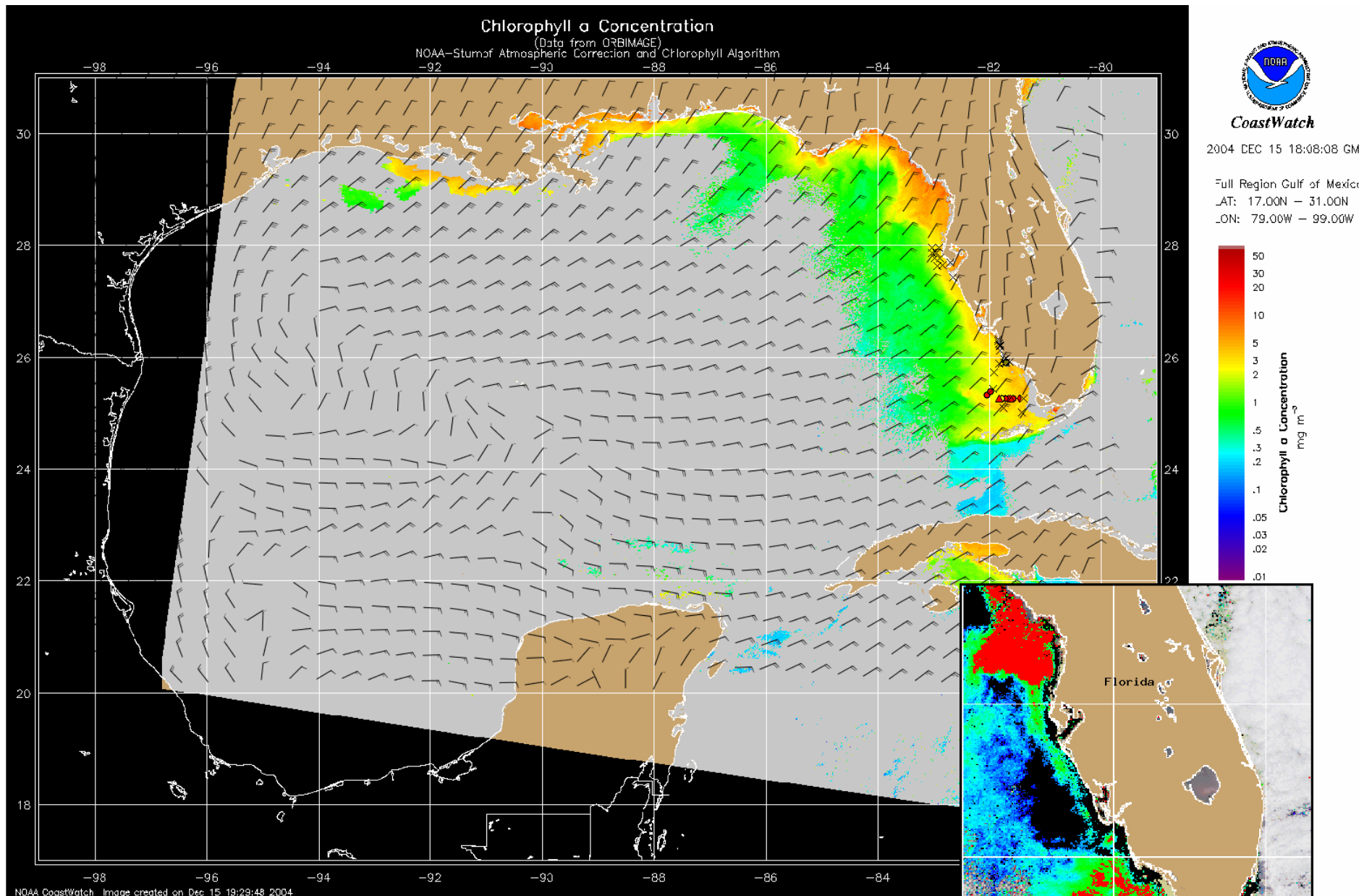


Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 14, 2004 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

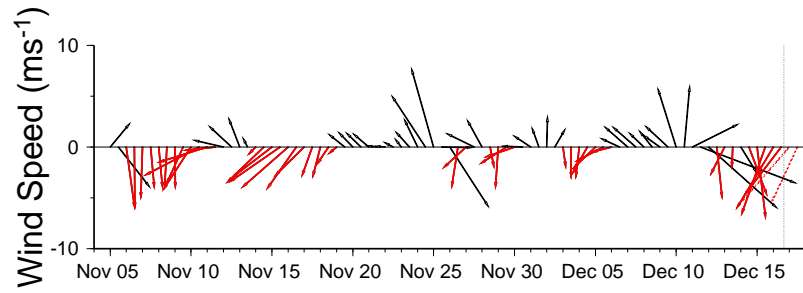
Winds have been northerly since Monday. The forecast calls for northeasterly winds today (15-20 knots, 8-10 m/s), tomorrow (10-15 knots, 5-8 m/s), and Saturday (5-10 knots, 3-5 m/s). Winds are forecasted to be northwesterly on Sunday and Monday (20-25 knots, 10-13 m/s).



Chlorophyll concentration from satellite and forecast winds for December 17, 2004 12Z with cell concentration sampling data from December 14, 2004 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Blooms shown in red (see p. 1 analysis and image for interpretation)

Wind conditions from Venice Pier, FL



Wind conditions from Tyndall AFB Tower C

